

1.- 20. sorularda, cümlede boş bırakılan yerlere uygun düşen sözcük veya ifadeyi bulunuz.

1. Beginning in the 1970s, a number of highly publicised hazardous waste crises led public health authorities to recognise hazardous waste as a significant ---- to the environment.

- A) temptation B) objection
C) threat D) approach
E) investment

2. Like most creatures of wetlands, certain species of toads have suffered large population ---- through losses of their natural habitats.

- A) attempts B) opportunities
C) declines D) habits
E) productions

3. Engineers have long recognised that the movement of tidal currents might be an environmentally safe and ---- source of power for human use.

- A) challenging B) efficient
C) devastating D) vulnerable
E) irregular

4. When Venus passed in front of the Sun in 1769, astronomers were able to measure the distance from the Earth to the Sun ---- for the first time.

- A) deliberately B) coherently
C) urgently D) accurately
E) slightly

5. The Italian scientist Spallanzani was the first to ---- the mystery of how bats could see and hunt in total darkness with some ingenious experiments.

- A) extract B) resolve
C) dissolve D) excavate
E) magnify

6. The term bacterial growth generally ---- growth of a population of bacteria rather than growth of an individual cell.

- A) comes in B) refers to
C) runs into D) splits up
E) gets through

7. Although humans ---- Mercury from Earth for thousands of years, its close proximity to the Sun ---- it difficult for astronomers to learn much about the planet.

- A) will observe / made
B) are observing / makes
C) had observed / was making
D) have been observing / has made
E) were observing / had made

8. In 1957, the Soviet Union ---- the first man-made object in orbit around the Earth, and since then, numerous launch vehicles ---- to improve the reliability and cost of placing objects in orbit.

- A) has placed / had been developed
B) had been placing / are developed
C) placed / have been developed
D) had placed / are being developed
E) was placed / were developed

9. Because technology should not be confused ---- science, philosophy of technology should be separated ---- philosophy of science.

- A) over / into B) with / from
C) for / about D) again / among
E) on / without

10. In the United States, thunderstorms usually occur ---- summer months, when large amounts of tropical maritime air remove ---- the country.

- A) along / for B) at / from
C) within / to D) on / through
E) during / across

11. The Turing Award, considered the Nobel Prize in computing, is awarded annually ---- an individual who has made a lasting contribution of major technical importance ---- the field of computer science.

- A) for / at
B) with / on
C) from / within
D) into / around
E) to / in

12. Astronauts in microgravity environments such as the International Space Station have to fix themselves into a secured sleeping bag; ----, they would just float about.

- A) eventually
B) even so
C) yet
D) furthermore
E) otherwise

13. DNA has emerged as a potential way to store digital information in recent years, ---- it comes with a significant problem: the molecule is so fragile that individual DNA strands rapidly degrade.

- A) likewise
B) for instance
C) on the contrary
D) yet
E) furthermore

14. ---- climate change intensifies, architects, designers and scientists or devising better ways to deal with almost anything nature throws on our way.

- A) even if
B) although
C) as
D) by the time
E) unless

15. No single individual can be given complete credit for the development of radio astronomy; ----, Karl Jansky has long been considered as one of the most important pioneers in the field.

- A) moreover
B) nevertheless
C) that is
D) as a result
E) similarly

16. In simple animals, the brain simply functions like a switchboard passing information to muscles, ---- in more advanced forms, particularly vertebrates, and more analytical brain coordinates complex behaviours.

- A) unless
B) so long as
C) so that
D) whereas
E) now that

17. Acetone is produced in many parts of the world in great quantities ---- its importance as a solvent and as a starting material for several chemical processes.

- A) except for
B) in case of
C) due to
D) despite
E) such as

18. ---- the apparent impossibility of answering all philosophical questions through science, quite a few contemporary philosophers do believe that science is the only legitimate path to knowledge.

- A) By means of
B) On behalf of
C) In comparison to
D) Despite
E) For the sake of

19. The famous astronomer Carl Sagan ---- interested in whether life exists elsewhere, ---- in whether intelligent beings might exist.

- A) not only / but also
B) as / to
C) so / that
D) the more / the more
E) no sooner / than

20. Metabolism refers to all the chemical reactions in cells ---- fats, carbohydrates, and other compounds are broken down to produce energy.

- A) by which
B) that
C) when
D) what
E) to whom

21.- 25. sorularda, aşağıdaki parçada numaralanmış yerlere uygun düşen sözcük veya ifadeyi bulunuz.

The Sun is a changeable star, sometimes calm and peaceful, sometimes erupting with great violence. These changes **(21)** ---- clear pattern with a cyclical rise and fall of solar activity every 11 years or so. For the last four centuries, scientists have kept records of the Sun's activity. **(22)** ---- the early 19-century German astronomer Samuel Heinrich Schwabe spent 17 years trying to spot a planet that he believed existed closer to the Sun than Mercury. He failed to see the silhouette of a new planet against the Sun; **(23)** ----, he did keep accurate records of sunspots. **(24)** ---- his observations, he noticed that the number of sunspots varied in a regular way, and the idea of the solar cycle was born. Today's orbiting and ground-based solar telescopes constantly **(25)** -- -- the Sun, revealing further details of this recurring pattern.

21.

- | | |
|------------------|------------------------|
| A) followed | B) follow |
| C) were followed | D) are going to follow |
| E) will follow | |

22.

- | | |
|-----------|---------|
| A) Above | B) For |
| C) During | D) Over |
| E) Among | |

23.

- | | |
|----------------|------------|
| A) similarly | B) however |
| C) for example | D) once |
| E) only when | |

24.

- | | |
|---------------------|-----------------|
| A) in terms of | B) in place of |
| C) for the sake of | D) on behalf of |
| E) with the help of | |

25.

- | | |
|------------|----------------|
| A) avoid | B) deteriorate |
| C) alter | D) examine |
| E) sustain | |

26. - 30. sorularda, aşağıdaki parçada numaralanmış yerlere uygun düşen sözcük veya ifadeyi bulunuz.

Beginning in the 1960s, scientists noticed that many of the trees in central Europe are dying. In particular, in the Black Forest, **(26)** ---- in southwestern Germany, a large number of trees showed signs of weakening and dying. The first trees to be stuck with the **(27)** ---- were the pines, followed by deciduous trees, the ones that lose their leaves each year. By 1990, many trees dried out and died, **(28)** ---- others dropped leaves or became discoloured. The problem was eventual attributed to acid deposition in the forest. Although several types of remediation techniques, **(29)** ---- replanting trees, were tried, none have yet been successful. Scientists assume that the damage to the soil has made it so acidic that new trees can no longer grow in these ancient forests **(30)** ---- current circumstances.

26.

- | | |
|-------------------------|------------------|
| A) locating | B) located |
| C) locate | D) to be located |
| E) to have been located | |

27.

- | | |
|----------------|------------------|
| A) separation | B) demonstration |
| C) examination | D) condition |
| E) distinction | |

28.

- | | |
|----------|------------|
| A) hence | B) so that |
| C) while | D) since |
| E) if | |

29.

- | | |
|-----------------|------------------------|
| A) such as | B) according to |
| C) due to | D) as a consequence of |
| E) on behalf of | |

30.

- | | |
|------------|----------|
| A) over | B) into |
| C) from | D) under |
| E) through | |

31. - 41. sorularda, verilen cümleyi uygun şekilde tamamlayan ifadeyi bulunuz.

31. Fossil fuels, which is a major source of pollution, cannot be replaced when their limited supplies are used up, ----.

- A) while renewable energy sources will not run out and produce little pollution
- B) as long as the sun shines, winds blow, waves crash, and rivers flow
- C) though coal, oil, and gas are the most important fossil fuels
- D) so that the wind can be used to spin turbines to generate electricity
- E) if windmills have been used to power machines for many centuries

32. ----, whereas decay of organic material releases it back to the atmosphere.

- A) Soil bacteria and other biological agents remove nitrogen from the atmosphere
- B) Water vapour is known to be an extremely important gas in the atmosphere
- C) The upper parts of the atmosphere contain a large number of ions
- D) Nitrous oxide is being produced at an unprecedented rate due to exhaust fumes
- E) A chemical difference in the composition of lighter gases can occur as they rise

33. Although the majority of reflexes are innate responses, ----.

- A) a reflex is known to be a response to a stimulus across multiple systems
- B) the human body has numerous essential reflexes like swallowing
- C) others are conditioned into a person as a result of life experiences
- D) the diving response is a breathing reflex triggered by submergence
- E) a newborn's reflexes are primitive ones present in the first few months of life

34. Although one-humped and two-humped camels are given separate species names, ----.

- A) both male and female camels have the same number of teeth for feeding
- B) they originally spread into South America, Asia, and Africa from North America
- C) they can interbreed fairly easily and are probably varieties of a single species
- D) the most common camel is known as the one-humped Arabian or dromedary camel
- E) they are central to the survival and culture of the nomadic peoples of the old world deserts

35. Taking regular doses of vitamin C will not protect us from catching a cold; ----.

- A) likewise, easing its symptoms is one of the functions of the immune system
- B) consequently, over-the-counter drugs treat only the symptoms of cold
- C) hence, antibiotics such as penicillin are useless against the common cold
- D) in short, vitamin C is one of the major antioxidants helping to heal wounds
- E) however, high doses of vitamin C may help to alleviate symptoms of cold

36. Even though birds have different structures for tear production compared to humankind, ----.

- A) tear production takes more time in humans and is a more complicated process
- B) tears of some species, including owls, contain higher levels of protein
- C) some components of their tears are present at similar concentrations found in humans
- D) maintaining eye health that is necessary for hunting is of great importance for birds
- E) researchers have enormous difficulty in collecting tears from certain bird species

37. Contrary to popular belief, the Earth's seasons are not caused by the varying distance from the Sun ----.

- A) as our planet's tilt causes the intensity of the sunlight to change over the Earth at different times
- B) so the Earth's orbit has a point at which it is closest to the Sun and another at which it is farthest from it
- C) but they occur because of the tilt of our planet's axis in relation to the plane of the Sun
- D) although the Earth does not spin around the Sun in a perfect circle but follows an elliptical orbit
- E) because when the North Pole is tilted towards the Sun, it is summer in the Northern Hemisphere

38. The African continent is poor in limestone outcrops in general, ----.

- A) yet no remarkable caves have developed due to the desert climate
- B) but its northern zone, Algeria in particular, has abundant sources of it
- C) so these formations are large reservoirs sustaining the base flow of many rivers
- D) whereas there is little potential for remarkable discoveries in some African countries
- E) for instance, for a long time, Morocco had the continent's longest cave networks

39. ----, those that occur can be catastrophic events involving a great loss of life.

- A) Although airline accidents occur infrequently
- B) Because recent aviation accident rates are very low
- C) If bad weather alone does not cause an accident
- D) As the reasons for approach and landing accidents vary
- E) Since the first consideration is to assist the injured in case of an accident

40. The moulds that grow indoors can be of particular concern for humans ----.

- A) as long as the mould varieties used in cheese production are sterilised
- B) even if the types of mould growing on food are believed to cause cancer
- C) unless some of the products of mould metabolism have great importance
- D) even though almost all sorts of mould require a moist surface for growth
- E) because they can cause allergic reactions in those who are sensitive

41. Atmospheric chemistry is a very complex science, ----.

- A) as the composition of the atmosphere is in constant instability
- B) yet much of what happens has been understood very little
- C) but radiation from space interacts with the atmosphere
- D) though millions of different industrial chemicals enter the atmosphere daily
- E) even if gases and chemicals in the atmosphere interact with each other

42.- 47. sorularda, verilen İngilizce cümleye anlamca en yakın Türkçe cümleyi bulunuz.

42. **Lack of gravity means that the body does not have to work so hard, so astronauts have to exercise to stop their muscles from wasting away.**

- A) Yerçekiminin olmaması vücudun çok sıkı çalışmasının gerekmediği anlamına gelir, bu yüzden kaslarının güçten düşmesini engellemek isteyen astronotlar egzersiz yapmak zorunda kalırlar.
- B) Yerçekiminin olmaması vücudun çok sıkı çalışmak zorunda olmaması anlamına gelir, bu yüzden astronotlar kaslarının güçten düşmesini engellemek için egzersiz yapmak zorundadır.
- C) Yerçekiminin olmaması sebebiyle vücudun çok sıkı çalışması gerekmez, bu da astronotların kaslarının güçten düşmesini engellemeleri için egzersiz yapmalarını gerektirir.
- D) Yer çekimi olmaması nedeniyle vücutları çok sıkı çalışmak zorunda olmayan astronotlar egzersiz yaparak kaslarının güçten düşmesini engellemeye çalışırlar.
- E) Yerçekimi olmaması vücudun çok sıkı çalışmak zorunda olmaması anlamına geldiği için, astronotlar kaslarını güçten düşürmemek için egzersiz yapmak zorunda kalırlar.

43. **Wood becomes petrified through the process of dissolution and change, which occurs when water that contains dissolved minerals permeates it.**

- A) Çözünme ve değişim işleminden geçen ve erimiş mineraller içeren su, odunun içine nüfuz ederek onu taşlaştırır.
- B) Çözülme ve değişim süreci sonucunda odunun taşlaşması, erimiş mineraller içeren suyun odunun içine nüfuz etmesine bağlıdır.
- C) Erimiş mineraller içeren su, taşlaşan oduna nüfuz ederek odundaki çözülme ve değişim süreçlerini tetikler.
- D) Oduna nüfuz eden su erimiş mineraller içeriyorsa çözülme ve değişim süreci sonunda odun taşlaşır.
- E) Odun, erimiş mineraller içeren su içine nüfuz ettiğinde gerçekleşen çözülme ve değişim yoluyla taşlaşır.

44. **Humans have developed many hybrid flower species, one of the classic cases of which is the Kew primrose, developed in the famous English botanical garden.**

- A) İnsanlar, birçok melez çiçek türü geliştirmeyi başarmıştır ve buna klasik bir örnek olarak ünlü bir İngiliz botanik bahçesinde geliştirilen Kew çuhaçiçeği verilebilir.
- B) İnsanlar, birçok melez çiçek türü geliştirmiştir ki bunun klasik örneklerinden biri, ünlü İngiliz botanik bahçesinde geliştirilen Kew çuhaçiçeğidir.
- C) Birçok melez çiçek türü insanlar tarafından geliştirilmiştir ve bunun en klasik örneği İngiltere'nin ünlü botanik bahçesinde yetiştirilen Kew çuhaçiçeğidir.
- D) Kew çuhaçiçeği, ünlü İngiliz botanik bahçesinde insanların geliştirdiği bir melez çiçek türüdür ve melez çiçek türlerinin klasikleri arasında yer almaktadır.
- E) İnsanlar, birçok melez çiçek türü geliştirmiş olabilir, ama bunlar içinde en klasik olan ünlü İngiliz botanik bahçesinde geliştirilen Kew çuhaçiçeğidir.

45. **Several studies attempt to determine whether naturally occurring soil acidification is formed as a result of acid rain and atmospheric conditions associated with it.**

- A) Toprak asitlenmesi üzerine yapılan birçok araştırma asit yağmurunun ve buna bağlı hava koşullarının, bu asitlenmenin doğal bir sonucu olduğunu ispat etmeye çalışmaktadır.
- B) Birçok araştırma, doğal olarak meydana gelen toprak asitlenmesinin asit yağmuru ve buna bağlı hava koşulları sonucunda oluşup oluşmadığını saptamaya çalışmaktadır.
- C) Asit yağmurunun ve buna bağlı hava koşullarının, toprak asitlenmesinin doğal bir sonucu olduğu birçok araştırma tarafından ortaya konmuştur.
- D) Birçok araştırmada, asit yağmurunun ve bununla bağlantılı çeşitli hava koşullarının, doğal olarak meydana gelen toprak asitlenmesinin sonucu olduğu belirtilmiştir.
- E) Asit yağmuru ve diğer hava koşullarının, doğal olarak meydana gelen toprak asitlenmesinin neticesinde oluştuğu birçok araştırma tarafından saptanmıştır.

46. Concerned about the ever-rising price of petroleum products as well as the greenhouse effect, many firms are trying to develop their own energy supply with an earth-friendly nature.

- A) Birçok şirket sera etkisiyle birlikte artan petrol ürünlerinin fiyatlarından endişe ettiğinden doğa dostu bir özelliğe sahip kendi enerji şebekelerini geliştirmeyi amaçlıyor.
- B) Sera etkisinden ziyade sürekli artan petrol fiyatından endişe duyan birçok şirket doğa dostu türde özel enerji şebekesi geliştirmeye çalışıyor.
- C) Sera etkisinin yanı sıra petrol ürünlerinin durmadan artan fiyatından endişe duyan birçok şirket doğa dostu özelliği olan kendilerine ait bir enerji şebekesi geliştirmeye çalışıyor.
- D) Sera etkisi ve sürekli yükselen petrol ürünlerinin fiyatları da birçok şirketi doğa dostu ve kendilerine ait enerji şebekesi geliştirmeye yönlendiriyor.
- E) Birçok şirket sera etkisinden ziyade petrol ürünlerinin sürekli artan fiyatları hakkında endişeli olduğu için doğa dostu özelliği bulunan özel enerji şebekesi geliştiriyorlar.

47. Technologists have long been designing computers being woven into our daily life, embedded in clothes and personal accessories.

- A) Teknoloji uzmanlarının uzun zamandır giysilere ve kişisel aksesuarlara yerleştirilen bilgisayarları tasarımlarının sebebi bunları günlük hayatımıza dâhil etmektir.
- B) Giysi ve kişisel aksesuarlara yerleştirilmiş şekilde günlük hayatımıza dâhil edilen bilgisayarlar, teknoloji uzmanları tarafından uzun zamandır tasarlanmaktadır.
- C) Teknoloji uzmanları, uzun zamandır giysilere ve kişisel aksesuarlara yerleştirilmiş şekilde günlük yaşantımıza dâhil edilen bilgisayarlar tasarlamaktadır.
- D) Teknoloji uzmanları tarafından uzun zamandır günlük yaşantımıza dâhil edilen bilgisayarlar, giysilere ve kişisel aksesuarlara yerleştirilebilecek şekilde tasarlanmaktadır.
- E) Teknoloji uzmanları uzun zamandır günlük yaşantımıza dâhil edilen bilgisayarlar tasarlamaktadır ve bunlar giysilere ve kişisel aksesuarlara yerleştirilebilmektedir.

48. - 53. sorularda, verilen Türkçe cümleye anlamca en yakın İngilizce cümleyi bulunuz.

48. Canlılar öldüğünde, mantar ve bakteri gibi diğer canlılar onların temel bileşenlerini, ölü dokulardaki karbonu oksijen ya da hidrojene bağlayarak, yeniden işlemeye başlarlar.

- A) Starting recycling of basic ingredients of living beings that have died requires other living beings including fungi and bacteria to combine the carbon in dead tissues to oxygen or hydrogen.
- B) In order to start recycling of the basic ingredients after a living being dies, other living beings including fungi and bacteria combine the carbon in the dead tissues with oxygen or hydrogen.
- C) When living beings die, in order for the recycling of the basic ingredients to start, other living beings, such as fungi and bacteria, combine the carbon in the dead tissues to oxygen or hydrogen.
- D) When living beings die, fungi, bacteria and other living beings that combine the carbon in the dead tissues with either oxygen or hydrogen, start recycling their basic ingredients.
- E) When living beings die, other living beings such as fungi and bacteria start recycling their basic ingredients by combining the carbon in the dead tissues with oxygen or hydrogen.

49. Avrupa kökenli insanlar arasında görülen hafif zararlı mutasyonların sayısı, modern insanların kıtaya ilk yerleştiği zamandan beri yavaş yavaş artmaktadır.

- A) The number of mildly harmful mutations among people of European ancestry has been gradually increasing ever since modern humans first moved into the continent.
- B) People of European ancestry have contributed to the increase in the number of mildly harmful mutations ever since modern humans first moved into the continent.
- C) Since people of European ancestry first moved into the continent, mildly harmful mutations have been gradually increasing in number among modern humans.
- D) The number of modern humans whose European ancestors first moved into the continent has been gradually increasing since the mutations became mildly harmful.
- E) A number of mutations have become mildly harmful for modern humans of European ancestors since they first moved into the continent, which has been gradually increasing.

50. Bazı araştırmacılar dinozorların neslinin aslında tükenmediğine ve birçok özelliği paylaştıkları bilinen kuşlar olarak günümüzde hayatta kaldıklarına inanmaktadır.

- A) Some researchers believe that dinosaurs are not actually extinct, and that they survive today as birds, with which they are known to have shared many traits.
- B) As dinosaurs are known to have shared many of their traits with birds, some researchers believe that dinosaurs, today, are not extinct, but they have survived.
- C) Many researchers believe that dinosaurs which are known to have shared many of their traits with birds today have been able to survive, contrary to common perception.
- D) It is known that dinosaurs shared some traits with birds; so, many researchers are of the opinion that they might be still around us.
- E) It is believed by some researchers that dinosaurs share many traits with birds existing today and have not completely died out.

51. İnsan şeklinde mekanik veya yapay modeller olan androidler uzun süredir bilim kurgunun başlıca konularından biridir.

- A) Androids that are mechanical or artificial models are one of the main subjects of science fiction as they have long been in the shape of humans.
- B) Androids that are human-shaped mechanical or artificial models have long been one of the major subjects of science fiction.
- C) Androids that have long been a major subject of science fiction are mechanical or artificial models shaped like a human.
- D) Mechanical or artificial android models that have the shape of humans have long been the leading subject of science fiction.
- E) One of the major subjects of science fiction is androids which have long been human-shaped mechanical or artificial models.

52. Modern su boruları ilk su kemerlerinden daha geniş ve çok daha uzun olsa da su taşımayı kontrol eden hidrolik ilkeler hep aynı kalmıştır.

- A) Modern water pipes are much wider and significantly longer compared to the first aqueducts but the hydraulic principles in controlling water carriage have always been the same.
- B) Even though modern water pipes are much wider and significantly longer than the first aqueducts, the hydraulic principles controlling water carriage have always remained the same.
- C) Although the hydraulic principles in controlling water carriage may be the same, the modern water pipes are much wider and significantly longer than the early aqueducts.
- D) Modern water pipes, which are much wider and significantly longer than the first aqueducts, have essentially the same hydraulic principles in controlling water carriage.
- E) The first aqueducts and the modern water pipes have the same hydraulic principles in controlling water carriage but modern ones are much wider and significantly longer.

53. Yeryüzünde insan etkisi günümüzde o kadar büyük ki yeni bir jeolojik zamana girip girmediğimiz bilimdeki temel tartışmalardan biridir.

- A) A major discussion currently in science is about the big human impact on Earth and whether we have entered a new geological time or not.
- B) We may have entered a new geological time due to the great human impact on Earth, but science is still debating whether this is true or not.
- C) Whether we have now entered a new geological time after the great human impact on Earth is one of the major debatable topics in science.
- D) Scientists are now discussing whether we have entered a new geological time because of the big impact humans have on Earth.
- E) Human impact on Earth is now so large that whether we have entered a new geological time is one of the major debates in science.

54. - 59. sorularda, boş bırakılan yere, parçada anlam bütünlüğünü sağlamak için getirilebilecek cümleyi bulunuz.

54. The eyes of starfish are extremely simple, are located at the tip of each arm, and are primarily light-sensing dots. ---- The sense of smell, however, is quite sensitive. Chemoreceptors on the starfish's skin can detect the faintest smell of its prey and even determine the direction from which it is coming. The starfish then sets off to catch its prey, slowly and deliberately, at the rate of 15.25 cm per minute.

- A) Starfish belong to the class Asteroidea, including 1500 species inhabiting all the world's oceans.
- B) Starfish come in a rainbow of colours, including bright red, cobalt blue and yellows.
- C) Starfish can tell light from dark, but they are unlikely to see much more than that.
- D) The nervous system of starfish consists of three main networks as oral, deep oral and aboral.
- E) Starfish must convert their food to liquid form because they lack teeth before ingestion.

55. Of all the animals, penguins are the primary inhabitants of Antarctica. They have oily feathers that provide a waterproof coat and a thick layer of fat for insulation. ---- While they prevent penguins from flying, they add weight and make it easier for penguins to dive into the water for food. Because predators cannot live in the brutally cold climate, penguins do not need to fly; thus, their wings have evolved over the centuries to resemble flippers or paddles.

- A) Female penguins lay eggs on the ice, then walk up to 80 km to the open sea for food.
- B) Penguins' bones are solid, not hollow like those of most birds that allow them to fly.
- C) Seven of the 18 known species of penguins live in Antarctica.
- D) The penguins travel long distances and hunt at various levels in the ocean.
- E) They are the hardiest of all the animals that inhabit the Antarctic, staying throughout the year.

56. Dams have been built since ancient times, and improvements were made at varying intervals as engineering technology developed. ---- In the early 1900s, concrete dams became thinner, and a new era of thin arch dams began. Earth and rock-fill embankment dams became economical during and after World War II. In 1980, an innovative method of using earth-moving and compacting equipment to place dry concrete greatly improved the economics of concrete dams.

- A) However, the twentieth century witnessed rapid advances in dam construction.
- B) They failed to build massive concrete structures for water supply and flood control.
- C) The construction of a dam may require the relocation of existing properties across the land.
- D) On the other hand, numerous dams have been constructed in various countries.
- E) Water quality is an important component in sustaining a balance in nature.

57. Insects become endangered because of the same destructive forces faced by many other animals. The leading causes include habitat destruction, displacement by introduced species, and chemical pollutants. ---- For example, there are many endangered species of tiger beetles and butterflies, and the major threat to most of these species is habitat degradation and loss as well as overcollecting.

- A) Insects make up more than 72 percent of global animal diversity based on available information.
- B) A rare and endangered species of insect is unlikely to determine the fate of a large ecological system.
- C) Pollution, and water development especially rank as the most frequent causes of habitat degradation.
- D) The vast majority of at-risk insects are reportedly threatened by more than one of these causes.
- E) Insects as a group are not at risk because many species are widely distributed.

58. In order to reduce emissions, there is a need to switch to energy sources that do not emit greenhouse gases. It is already being done, but the speed must be increased. ---- American scientists estimate that the rest of the world could do the same before 2050. If the world acts quickly, it may be possible to create a global network during the second half of the century that will overcome climate-difficulties handling a future in which we keep on emitting huge quantities of greenhouse gases.

- A) Scientists have warned that it might already be too late to fulfil the ambition.
- B) Some nations, such as Iceland, Norway, and Costa Rica, are close to getting 100 percent of their energy from green sources.
- C) It should be made mandatory to disclose the energy-efficiency ratings of all new buildings.
- D) The natural disasters such as tsunamis will be more frequent due to greenhouse gases.
- E) In the short run, the emission needs to be confined to 2.1 tonnes per capita per year.

59. In everyday language, the term 'safety' is often used to denote absolute safety, that is, certainty that accidents or other harms will not occur. ---
Therefore, engineers believe that what can be achieved is relative safety, meaning that it is unlikely but not impossible that harm will occur. The safety requirements in regulations and standards represent different levels of relative safety. Industries with high safety ambitions, such as airway traffic, are characterised by continuous endeavours to improve the level of safety.

- A) In engineering practice, safety is an ideal that can be approached, but never fully attained.
- B) The protection of people from harm increasingly has been a focus of many fields of engineering since the 19th century.
- C) Safety has often been defined as the antonym of risk, but that is only part of the truth.
- D) Several methods are used by engineers to achieve safety in the design and operation of potentially dangerous technology.
- E) The intertwining of engineering and safety probably will intensify in the future in response to constantly rising public expectations.

60.-65. sorularda, cümleler sırasıyla okunduğunda parçanın anlam bütünlüğünü bozan cümleyi bulunuz.

60. (I) According to the World Gold Council, there are currently around 184,000 tonnes of gold sitting in bank vaults, government reserves and personal collections. (II) That sounds like an awful lot, until you realise that just one cubic metre of the stuff weighs over 19 tonnes. (III) Similarly, each litre of seawater contains just 13 billionths of a gramme of gold. (IV) Thus, all the world's known gold reserves could be laid out on a football pitch in a layer only a metre or so high. (V) But this is only the gold that has been successfully mined and documented.

- A) I
- B) II
- C) III
- D) IV
- E) V

61. (I) A hand-size monkey called marmosets is in great demand in labs and yet almost nowhere to be found. (II) With their small size, fast growth, and sophisticated social life, marmosets attract the attention of neuroscientists. (III) So, they have been genetically engineered to make their brains easier to image and to serve as models for neurological disorders such as autism and Parkinson's. (IV) They call to each other in back-and-forth conversations, and pairs share responsibility for caring for the young. (V) However, the problem is there are almost none left to be used by researchers because of their endangered status.

- A) I
- B) II
- C) III
- D) IV
- E) V

62. (I) Plants, like people, have definite ideas about where they like to live. (II) Like people, they flourish in friendly conditions and become weak and dispirited if life is too difficult for them to cope with. (III) Unlike people, however, plants cannot take practical steps to improve their homesite - they cannot up and move, and they cannot protect themselves against adverse conditions. (IV) Warm-season plants often have large and deep root systems that enable them to go for relatively longer periods without being watered. (V) Therefore, it is the responsibility of people taking care of plants to provide them with the most appropriate living conditions.

- A) I
- B) II
- C) III
- D) IV
- E) V

63. (I) Omega-3 is the supplement best known as a brain booster. (II) Rich in oils, fatty fish like herrings, sardines and mackerel survive extreme temperatures. (III) Although there is so much research in the literature on the link between Omega-3, and the brain, most of it is based on small, commercially motivated and unreliable studies. (IV) When these are removed, the evidence that is left is not convincing. (V) More research is needed to obtain sufficient evidence beyond doubt on whether Omega-3 is good for the brain.

- A) I
- B) II
- C) III
- D) IV
- E) V

64. (I) We know dirty air is bad for our bodies, causing the equivalent of millions of deaths worldwide every year, making it a bigger killer than smoking. (II) But could air pollution be bad for our minds too? (III) A study has found that psychotic experiences, which can involve hearing or seeing something that others do not, are more common among teenagers in the UK's most polluted areas. (IV) Noise pollution can increase stress and disrupt sleep, two factors associated with psychotic experiences. (V) However, the association does not mean that breathing in air pollution leads to psychosis in teenagers, because there could be other explanations.

- A) I
- B) II
- C) III
- D) IV
- E) V

65. (I) After decades of special effects and artists' impressions, the world got its first look at a real black hole in April 2019. (II) The image quickly spread around the globe, hitting the front pages of many newspapers. (III) Scientists are never satisfied, and this is no exception. (IV) It shows an ethereal ring of orange light around the supermassive black hole at the heart of the M87 galaxy, 55 million light years from Earth. (V) The image was taken using the combined power of eight radio observatories around the world by the Event Horizon Telescope team comprised of 387 scientists.

- A) I
- B) II
- C) III
- D) IV
- E) V

66. - 68. soruları aşağıdaki parçaya göre cevaplayınız.

Barnacle geese are radically changing their migration patterns as a result of the warming climate and speeding up their annual trip to reach the best breeding spots, with devastating consequences for chicks. Each year, the adults migrate 3,000 kilometres from the North Sea to breeding grounds in the Russian Arctic. They normally stop on the way for food and rest along the Baltic Sea, but they have started skipping these rest breaks to reach the Arctic in turtle for its increasingly early spring. This has meant they arrive at their destination almost two weeks ahead of their usual schedule. The early arrival has created problems; the geese are exhausted and need time to replenish energy before laying eggs. As a result, they can fail to lay in time for the chicks to hatch when food quality is at its peak. This is making it harder for the chicks to become strong enough to survive the return journey.

66. According to the passage, barnacle geese ----.

- A) changed the content of their source of food
- B) usually make stopovers more often than they did before
- C) used to have stopovers on their way to breeding grounds
- D) have developed a new way to lay eggs without having to migrate
- E) skip the Russian Arctic and prefer the North Sea to lay eggs

67. It is pointed out in the passage that ----.

- A) adult geese have always flown without a break to their breeding ground
- B) the Arctic is the most preferred place to breed for all kinds of migratory birds
- C) barnacle geese spend half of the year on breeding in the Russian Arctic
- D) stopovers may help the chicks to become strong enough before migrating back
- E) barnacle geese reach the Russian Arctic in a longer time than they used to

68. It is clear from the passage that ----.

- A) rising temperatures in the Arctic cause barnacle geese to have more stopovers
- B) the Baltic Sea has just become a favourite place for barnacle geese to have a rest
- C) barnacle geese have successfully adapted to need less time to replenish their energy before laying eggs
- D) early arrival of barnacle geese in their breeding sites has unfortunate outcomes for the chicks
- E) breeding spots for every type of geese change as a result of the warming climate

69. - 71. soruları aşağıdaki parçaya göre cevaplayınız.

Some sheep have a cultural tradition of migrating, but this knowledge can be lost in a generation if their journeys are interrupted. Every spring, bighorn sheep migrate to higher altitudes, following nutritious new vegetation as it emerges from the melting snow. But is knowledge of these routes inherited genetically, or is it something that must be learned? To answer this question, a group of researchers looked at how the sheep behaved when moved to new locations by people, known as translocation. They studied data from 129 bighorn sheep from four populations that had lived in the same area for more than 200 years. The animals were fitted with special GPS collars, - a highly advanced gadget - and the team compared their movements with those of 80 sheep translocated into new populations in unfamiliar environments. Between 65 and 100 percent of sheep living in the same area as their ancestors climbed 1,000 metres up mountainsides to graze on new vegetation as it appeared in spring. By contrast, only seven of the translocated sheep behaved in this way. Because the other 73 translocated sheep did not migrate, it seems that migration cues are not inherited genetically.

70. We understand from the passage that researchers ---

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- A) were able to follow migration routes of bighorn sheep only in the spring
- B) could direct most of the bighorn sheep to the new vegetation areas
- C) forced 65 percent of the sheep to migrate to graze on new vegetation
- D) found out that most of the translocated sheep migrated like their ancestors did
- E) used specific technological devices to follow sheep in different locations

71. It can be understood from the passage that ----.

- A) bighorn sheep that live in the same area for a long time do not feel the need to migrate
- B) bighorn sheep instinctively tend to migrate when they are translocated
- C) migration is a learned behaviour in bighorn sheep rather than an inherent one
- D) researchers had difficulty in following the migration routes of some animals
- E) bighorn sheep are willing to change their vegetation habits every spring

72. The passage is mainly about ----.

- A) the genetic features of bighorn sheep and their migration habits
- B) the cultural migration tradition of bighorn sheep
- C) the analysis of migration routes of bighorn sheep
- D) the features of migration routes of bighorn sheep and how to improve them
- E) the techniques that researchers use to conduct their study of bighorn sheep

72. - 74. soruları aşağıdaki parçaya göre cevaplayınız.

Solar water heating systems convert solar radiation into useable thermal energy in the form of hot water. Domestic solar water heaters can provide households with a large proportion of their hot water needs while reducing the amount of conventional fuel used and hence reducing home energy costs. The amount of hot water produced will depend on the type and size of the system, the climate, and the location for solar access. Over the years, a variety of system designs have been developed and tested to meet specific consumer needs and environmental conditions. The first solar water heaters consisted of exposed tanks of water left out to warm in the Sun, efficient only on sunny days. Used on a few farms and ranches in the Southwest of the United States in the late 1800s, they were reportedly capable of producing water hot enough for showering by the late afternoon on clear days. The first solar water heater, manufactured commercially under the trade name, was patented in 1891

72. Which of the following is true for solar water heating systems?

- A) The use of solar water heating systems leaves no room for other energy sources in homes due to their efficiency.
- B) The amount of energy produced through solar water systems far exceeds the amount that could be essential for typical households.
- C) There are various factors that might be influential on the amount of the output generated by solar water heating systems.
- D) Solar water heating systems are characterised by a process which basically involves the transformation of traditional fuel into thermal energy.
- E) Solar water heating systems were projected in the 19th century to be appropriate even for uses that involve very large amounts of energy.

73. Which of the following could be inferred from the passage?

- A) Solar water heating systems have changed little since their earliest forms were first used.
- B) Solar water heating systems were highly popular in densely populated areas when they were first introduced
- C) Weather conditions were highly influential in the performance of the earliest versions of solar water heating systems.
- D) It took a couple of centuries for solar water heating systems to get commercialised, particularly in the US.
- E) Due to their dependence on the Sun, solar water systems are designed with some restrictions that control the amount of energy produced.

74. The aim of the author is ----.

- A) to convince the reader not to use solar water heating systems in households
- B) to give a brief description of the way thermal energy is formed
- C) to describe how the first heating systems were developed
- D) to provide a brief early history of solar water heating systems
- E) to compare conventional heating systems with energy-efficient ones

75. - 77. soruları aşağıdaki parçaya göre cevaplayınız.

The desire to explore space is nearly primal for Homo sapiens. Early humans quickly spread out of Africa to every region on the planet, then came to speculate that the stars and planets were yet other material places worthy of exploration. The idea to travel to these other worlds was inevitable. However, for thousands of years, humans commonly drew fundamental distinctions between the Earth and non-Earth environments. Aristotle taught that the laws of nature that applied on Earth did not necessarily apply beyond the Earth, thus severely restricting the very possibilities for human space exploration. During the early modern exploration of the Earth, astronomers such as Galileo Galilei and his contemporary, Johannes Kepler, began the modern observational exploration of the space, using new techniques and instruments of science. A result of this exploration of space was the scientific revolution itself. Science is now seen as applicable to understanding the entire world, to both space and Earth. In this way, civilisation has been transformed.

75. According to the passage, early humans ----.

- A) quickly left Africa to explore whether there were similar regions to places they were living
- B) thought that other planets and stars were nothing different from Earth
- C) always wanted to explore places beyond Earth after making some suppositions about them
- D) had not been aware of other material places beyond Earth until the formulations done by Aristotle and Kepler
- E) started speculating about the stars and planets even before moving out of Africa

76. It is understood from the passage that modern exploration of space ----.

- A) was initially focused on the differences between the Earth and other spaces
- B) changed science in a way to make it possible to understand both space and Earth
- C) restricted the possible human space exploration attempts
- D) was based on Aristotle's observations of the laws of nature
- E) changed only the instruments of space exploration

77. The passage is mainly about the ----.

- A) technologies and instruments used in space exploration today
- B) approaches of great scientists in the field of space exploration
- C) underlying reasons that encourage humans to improve science
- D) historical development of the understanding of space exploration
- E) current viewpoints of modern observational exploration of space

78. - 80. soruları aşağıdaki parçaya göre cevaplayınız.

Although it seems out-of-date currently, telegraphy has always been a reliable method of communication employing electrical signalling impulses produced and received manually or by machines. Telegraph signals are transmitted over open wire or cable landlines, submarine cables, or radio. Early equipment devised by Samuel F. B. Morse consisted of a mechanical transmitter and receiver or register for the first time. Operators soon learned to handle messages faster by using simple manual keys and audible sounders. Subsequently, telegraph transmission and reception became mechanised. Those days, it was also used in many other ways. For instance, telegraph facilities for use by the general public to transmit messages both domestically and internationally were provided by communication companies and government administrations. Special telegraph facilities included those for news services, distribution of market prices of securities and commodities, and private lines between such points as the factories and offices of a company for the exchange of messages, orders, payroll data, and inventories.

78. According to the passage, telegraph ----.

- A) is the fastest communication tool in the modern world
- B) did not include a mechanical transmitter before Samuel F. B. Morse's version
- C) was not very popular among both local and global companies in its early days
- D) was used more by governments than the private companies
- E) has been valued as the biggest communication tool ever

79. Which of the following is not true about telegraphy?

- A) A telegraph signal can be transmitted using different instruments.
- B) Audible sounders were among the factors that led to faster communication.
- C) It was easier to transmit messages manually than mechanically.
- D) Companies exchanged data through telegraph messaging.
- E) Telegraph messaging was preferred by companies, government and general public.

80. According to the passage special telegraph facilities

----.

- A) have still been widely used across the globe
- B) could only transmit messages locally
- C) provided by government administrations offered only domestic services
- D) were utilised for many purposes
- E) ran better before being mechanised

29 AĞUSTOS 2021

YÖKİL FEN BİLİMLERİ CEVAP ANAHTARI

1. C	21. B	41. A	61. D
2. C	22. C	42. B	62. D
3. B	23. B	43. E	63. B
4. D	24. E	44. B	64. D
5. B	25. D	45. B	65. C
6. B	26. B	46. C	66. C
7. D	27. D	47. C	67. D
8. C	28. C	48. E	68. B
9. B	29. A	49. A	69. E
10. E	30. D	50. A	70. C
11. E	31. A	51. B	71. B
12. E	32. A	52. B	72. C
13. D	33. C	53. E	73. C
14. C	34. C	54. C	74. D
15. B	35. E	55. B	75. C
16. D	36. C	56. A	76. B
17. C	37. C	57. D	77. D
18. D	38. B	58. B	78. B
19. A	39. A	59. A	79. C
20. A	40. E	60. C	80. D